

Exhibit A

Daniel M. Hattis (SBN 232141)
Paul Karl Lukacs (SBN 197007)
HATTIS & LUKACS
400 108th Ave NE, Ste 500
Bellevue, WA 98004
Telephone: (425) 233-8650
Facsimile: (425) 412-7171
Email: dan@hattislaw.com
Email: pkl@hattislaw.com

Attorneys for Plaintiff and the Proposed Class

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

NICHOLAS MALONE,
for Himself, as a Private Attorney
General, and/or On Behalf Of All
Others Similarly Situated,

Plaintiff,

v.

WESTERN DIGITAL CORPORATION,

Defendant.

Case No. 5:20-cv-03584

CLASS ACTION

COMPLAINT FOR:

- (1) VIOLATION OF CAL. CIVIL CODE § 1750**
- (2) VIOLATION OF CAL. BUSINESS & PROFESSIONS CODE § 17500**
- (3) VIOLATION OF CAL. BUSINESS & PROFESSIONS CODE § 17200**

JURY TRIAL DEMANDED

Plaintiff Nicholas Malone, individually, as a private attorney general, and/or on behalf of all others similarly situated, alleges as follows, on personal knowledge and investigation of his counsel, against Defendant Western Digital Corporation (“WDC” or “Defendant”):

INTRODUCTION AND SUMMARY

1. This case is brought against Western Digital Corporation (“WDC” or “Western Digital”) on behalf of all United States residents who purchased certain hard drives which were branded “WD Red NAS” and were explicitly advertised and represented to be designed for and suitable for use in NAS (network attached storage) devices, but which in fact are not suitable for that intended use and which put customer data at greater risk of data loss or destruction due to the use of inferior hard drive technology which is not appropriate or compatible with usage in NAS devices. The inferior (and cheaper) hard drive technology utilized by WDC in the hard drives is called “SMR” (Shingled Magnetic Recording). WDC surreptitiously sneaked—without any disclosure whatsoever—this SMR technology into its WD Red NAS hard drives within the past year or so in an effort to shave costs while keeping the selling price the same.

2. This inferior SMR technology replaced the more-expensive-to-produce but industry-standard “CMR” (Conventional Magnetic Recording) technology which WDC had previously used—for nearly a decade—in these very same “WD Red NAS” branded hard drives. Industry experts agree and have gone on the record (including WDC’s competitor Seagate Technology) that this SMR technology is completely inappropriate, and even dangerous, for NAS or RAID usage, and should never be used in such an application. (NAS, RAID, and other technical terms in this introduction are fully explained in the body, *infra.*)

3. Yet, even after WDC was caught perpetrating this scheme in April 2020 (after initially denying the hard drives utilized SMR technology, but then finally admitting it), WDC has continued to falsely advertise that these SMR-technology WD Red NAS hard drives are “purpose-built” for NAS and RAID to “help preserve your data.”

4. As a result of WDC’s fraud and deception, thousands of customers nationwide who purchased the WD Red NAS hard drives for their advertised and intended use have been duped, and have suffered harm and damages. These WD Red NAS hard drives with the inferior SMR technology are potential ticking time bombs that risk the destruction of customer data and files at any moment, because the data recovery and redundancy features of the NAS device may fail during the RAID rebuilding process (also called “resilvering”) as the SMR hard drives

cannot handle the continuous sustained writes and heavy random writes which necessarily then occur. (The term “writes” as used in this Complaint includes writes and re-writes of data.) Customers are also often unable to expand their NAS storage capacity by adding more hard drives, which requires a similar resilvering process as the data is redistributed and rewritten across all the hard drives. In fact, the SMR hard drives are simply unable to handle continuous sustained random writes (which often occurs in normal NAS usage) without freezing up and reporting “timeouts” to the NAS device, causing poor performance. The WD Red NAS drives may also fail to adequately function while performing standard and expected RAID “scrubbing,” which is a recommended periodic data integrity check where all the data on the hard drive is checked for errors and consistency and automatically corrected. Ultimately, the WD Red NAS devices are wholly inappropriate for their intended and advertised use (which WDC even put in the product’s name: WD Red “NAS”). The hard drives are **completely worthless** for their intended purpose—and are in fact dangerous to customer data.

5. Plaintiff Nicholas Malone brings this action individually on his own behalf as a deceived Western Digital customer and as a private attorney general seeking an order for public injunctive relief to protect the general public, directing that WDC stop advertising, and to instruct its resellers to stop advertising, any hard drives with SMR technology as being appropriate for NAS devices or RAID (including by removing “NAS” from such products’ names).

6. Plaintiff also brings this action as a representative plaintiff on behalf of a nationwide class of consumers who purchased WD Red NAS hard drives utilizing SMR technology, seeking, among other things, that Defendant be ordered to disgorge all revenues Defendant has unjustly received from the members of the class. Plaintiff also seeks an order requiring Defendant to: (1) provide notice to every class member that the WD Red NAS hard drive they purchased is not suited for its intended purpose; and (2) either provide a full refund to Plaintiff and class members for their WD Red NAS hard drives, or provide Plaintiff and class members with replacement CMR-technology hard drives that are truly suited for use with NAS devices and RAID, at no additional cost.

7. Plaintiff brings these claims under California statutory authority and principles of equity including the Consumers Legal Remedies Act, California Civil Code § 1750 *et seq.*; the False Advertising Law, California Business & Professions Code § 17500 *et seq.*; and the Unfair Competition Law, California Business & Professions Code § 17200 *et seq.*

THE PARTIES

8. Plaintiff Nicholas Malone is a citizen of the United States of America and Wisconsin and is an individual and a natural adult person who resides in Madison, Wisconsin.

9. Like all members of the proposed class, Plaintiff Malone purchased a WD Red NAS Drive that utilized SMR technology. Specifically, Plaintiff Malone purchased on Amazon.com, four (4) “WD Red 6TB NAS Hard Drives – 5400 RPM Class, SATA 6 GB/s, 256 MB Cache, 3.5” – Model Number: WD60EFAX” for \$150.12 each on March 6, 2020.

10. Defendant Western Digital Corporation is a Delaware corporation with its principal place of business and/or nerve center located at 5601 Great Oaks Parkway, San Jose, California 95119.

JURISDICTION AND VENUE

11. **Subject Matter Jurisdiction.** The Court has subject matter jurisdiction over this civil action pursuant to 28 U.S.C. § 1332(d)(2)—*i.e.*, Class Action Fairness Act jurisdiction—because the amount in controversy exceeds the sum or value of \$5 million (exclusive of interest and costs) and is a class action in which any member of a class of plaintiffs is a citizen of a state different from any defendant.

12. **Personal Jurisdiction.** This Court has personal jurisdiction over Defendant because: (1) Defendant WDC is headquartered in San Jose, California (which is within the Northern District of California) and is authorized to do business and regularly conducts business in the State of California such that the maintenance of this lawsuit does not offend traditional notions of fair play and substantial justice; and/or (2) Defendant has committed tortious acts within the State of California (as alleged, without limitation, throughout this Complaint).

13. **Venue.** Venue is proper in the Northern District of California because, pursuant

to 28 U.S.C. § 1391(b)(1), this judicial district is a judicial district in which Defendant WDC resides, and pursuant to 28 U.S.C. § 1391(c)(2), for venue purposes WDC shall be deemed to reside in this judicial district because WDC is subject to the court’s personal jurisdiction with respect to this civil action.

FACTUAL ALLEGATIONS

14. Western Digital (“WDC”) is one of the largest manufacturers of hard drives in the world. Western Digital manufactures two different types of hard drives: traditional large-capacity spinning disk mechanical hard drives, and more modern but smaller-capacity solid-state flash storage drives (often also called hard drives) which have no moving parts. This Complaint concerns the traditional large capacity spinning disk mechanical hard drives, and any reference to “hard drives” herein means traditional spinning disk mechanical hard drives.

15. Hard drives are utilized to store digital data and files for a home or business computer system. Several hundred million hard drives (spinning disk mechanical hard drives) are sold each year to consumers and businesses worldwide. Hard drives utilize spinning magnetic disk technology to hold information inscribed in very tiny tracks, somewhat similar to how a vinyl record holds information read by record players. These hard drives have moving parts, including a mechanical head which reads and writes data to one or more disk platters, which are contained inside a single sealed unit.

16. In 2012, WDC released its WD Red series NAS hard drives, which were specifically designed for NAS (network-attached storage) systems and for RAID (Redundant Array of Independent Disks) environments. A NAS device is a stand-alone computing device which typically contains multiple individual hard drives that are grouped together to form one large datastore, which is used to store files and share them with other computers or laptops over a network. RAID is a technology, typically utilized in NAS devices, of combining multiple hard drives into a single logical datastore or virtual drive for data redundancy, data security, and performance purposes. NAS devices which contain four or more hard disks typically (and often automatically) format the drives in a “disk striping” format such as RAID 5 or RAID 6 or ZFS software or hardware RAID, which builds in redundancy such that one or multiple drives

1 can fail and data will not be lost. (ZFS is a proprietary file system and logical disk volume
2 manager owned by Oracle with robust redundancy and error-correction features; the term
3 “ZFS” is also often used to mean OpenZFS, which is a popular open-source version of ZFS.)
4 NAS devices have become increasingly popular for both home and small business use, as the
5 use of digital data has exploded over the years including digital files, photographs, and videos
6 which have required ever-increasing storage capacity which NAS devices (with their grouping
7 of large hard drives) are able to provide along with data redundancy.

8 17. Hard drives which are designed and built for NAS and RAID must have certain
9 characteristics. In particular, such hard drives must be able to handle continuous and sustained
10 writes and heavy random writes, which necessarily occur during the RAID rebuilding process
11 (also called “resilvering”) when a failed hard drive in a striped RAID array (standard in a NAS)
12 is replaced with a new drive and the data is redistributed across the replacement drive and the
13 other drives. Continuous and sustained random writes also occur when the storage capacity of a
14 RAID array is expanded by adding hard drives, which requires a similar resilvering process
15 where the data is redistributed and spread across all the drives.

16 18. Continuous and sustained writes and heavy random writes also occur during
17 RAID “scrubbing,” which is a standard and recommended periodic data integrity check where
18 all the data on the hard drive is checked for errors and consistency and automatically corrected.
19 NAS manufacturers generally recommend (and often set their devices to automatically
20 perform) RAID scrubbing at least once a month to maintain system health and to prevent data
21 loss.

22 19. Hard drives designed and built for NAS and RAID also are expected to have
23 reliable and fast random-write performance in general, and to be able to handle continuous
24 random writes (where data may also be being written from multiple computers on the network
25 simultaneously).

26 20. For nearly a decade, WDC has enjoyed a strong reputation as best-in-class for its
27 WD Red NAS hard drives. WDC today continues to advertise its WD Red NAS hard drives as
28 the “**Built for NAS compatibility**” and “**Designed for RAID environments.**” WDC

advertisises WD Red NAS hard drives as “**specifically designed for use in NAS systems with up to 8 bays**” and appropriate for “**small and home office NAS systems in a 24x7 environment.**” See the WDC product spec sheet for WD Red NAS hard drives available on the web at <https://products.wdc.com/library/SpecSheet/ENG/2879-800002.pdf>, a printout of which is attached hereto as **Exhibit A**. And until 2018, WDC’s advertising rang true, and its WD Red NAS hard drives, which utilized industry-standard CMR (conventional magnetic recording) technology, did indeed rightfully earn a reputation for reliability and being “purpose-built” and well suited for NAS and RAID environments.

21. However, in 2018, WDC secretly swapped out the industry-standard CMR technology from many of its WD Red NAS hard drives, and replaced it with inferior (and cheaper) hard drive technology called SMR (shingled magnetic recording). WDC switched the recording technology in these drives to SMR for one reason: to reduce its costs and increase its profits. SMR technology enables WDC to fit 25% more data onto the same-size disk platters, thus significantly reducing its costs to produce the drives. Meanwhile, WDC kept this switch to SMR technology a secret, so that it could continue to charge the same price as it previously charged for CMR drives, thereby increasing its profits. WDC intentionally did not disclose its use of SMR technology in the hard drives anywhere whatsoever. WDC did not mention the SMR technology in its advertising, in its hard drive documentation, in the hard drive product spec sheets, or in the labeling on the hard drive itself.

22. Unfortunately, this SMR technology is wholly inappropriate for use in NAS and RAID systems—which is the very use that WDC advertises and promises that these WD Red NAS hard drives are suitable and “purpose-built” for.

23. SMR technology was created, and had *previously* been utilized, to increase storage density in large capacity hard drives, but at the expense of write performance. Historically, the SMR hard drives had been limited to cost-effective archiving on the industry’s very largest hard drives, and/or used for cold storage (e.g., long-term storage where after the drive is filled it is unplugged and put on a shelf for safekeeping)—applications where fast or reliable continuous random-write speed was not required.

24. SMR technology allows the tracks on a hard disk platter to be layered on top of each other, like roof shingles on a house, to increase platter and storage density. Hard drives that use SMR technology are significantly slower in writing data than CMR hard drives because when an SMR drive writes to an area, the *entire region* (e.g., below and above the shingle) will need to be read, copied, and re-written, in contrast to a standard CMR drive where the data can be written quickly and discretely.

25. Some SMR hard drives, like the WD Red NAS hard drives at issue in this case, manage this data writing and rewriting process on the drive itself via DM-SMR technology, i.e., drive-managed SMR. By utilizing DM-SMR technology, WDC was able to *hide* this process from computing devices and the user, via caching tricks which (when the drive was being written to only intermittently and not on a sustained continuous basis) can camouflage the slowness of the drive. WDC utilized increased DRAM memory cache on the hard drive and also a small CMR cache zone to function as a temporary storage space. Data writes by such DM-SMR drives are first temporarily stored on the staging disk area (the small CMR cache zone). Then, when the disk is idle (i.e., when there is no writing being made to it), the hard drive will rearrange the data in the background, moving the data that was temporarily saved in the CMR cache over to the main SMR part of the drive; this is also referred to as the “garbage collection” process.

26. However, after continuous sustained random writes, the CMR cache layer becomes full, and the drive slows down dramatically—it essentially “chokes” and stops the flow of data while it flushes out the CMR cache and tries to catch up on the much slower writing to the main SMR hard disk. This is especially problematic and dangerous when the hard drive has been set up in a NAS as part of a RAID array. In that case, the choking hard drive reports “timeouts” or loss of connectivity to the NAS, which logically assumes the hard disk has failed and then kicks the drive out of the RAID array, which can cause catastrophic data loss.

27. When WDC downgraded the technology in its WD Red NAS hard drives to SMR technology, it did so secretly, without telling a soul. Based on information and belief,

WDC did not inform the NAS manufacturers, who had tested and certified the previous CMR versions of the identically-labeled hard drives, that it had replaced the guts of these white-listed drives with cheaper and poor-performing SMR technology. Based on information and belief, WDC likewise did not inform its resellers, such as Amazon.com, that it had replaced the guts of many of its WD Red NAS hard drives with inferior and cheaper SMR technology.

28. When WDC downgraded its hard drives to SMR technology, WDC did not change any of the advertising or representations it had made regarding the hard drives being “purpose-built” and suitable for NAS and RAID. WDC did not make any disclosure whatsoever of its use of SMR technology in the hard drives. WDC advertising and specifications, which were also utilized by its resellers in their ads and product web pages for the hard drives, continued to make the exact same representations and statements that the WD Red NAS hard drives were specifically intended and appropriate for NAS and RAID.

29. **Starting around March 2019, various purchasers of WD Red NAS hard drives began reporting poor write performance and consistent failures during RAID resilvering.**

30. For example, one user stated: “[W]hen I was moving data from one drive to another, several terabytes worth, it literally took most of a week. The drive would fill 30GB, then stop and basically lock up the OS.”¹

31. Another user stated: “[T]he latest iteration of WD REDS [are] unable to be used for rebuilding RAID[56] or RAIDZ sets: They rebuild for a while (1-2 hours), then throw errors and get kicked out of the set.”²

32. Another user posted on a Synology (a leading NAS manufacturer) user forum that he was unable to add a new WD Red NAS 6TB drive to a RAID setup containing three older WD Red NAS 6TB drives. When the user added the new WD Red NAS drive, the

¹ See <https://arstechnica.com/gadgets/2020/04/caveat-emptor-smr-disks-are-being-submerged-into-unexpected-channels/>.

² See <https://blocksandfiles.com/2020/04/14/wd-red-nas-drives-shingled-magnetic-recording/>.

1 resilvering process took over three days and then failed.³

2 33. Purchasers also reported being unable to use the hard drives in their NAS
3 systems, and that the hard drives kept getting kicked out of their RAID arrays. One user stated:
4 “Attempting to replace drives in my existing array resulted in new WD-RED WD40EFAX
5 drives (multiple units) throwing HARD errors (IDNF - Sector ID not found) and being kicked
6 out of the array. That’s apart from them pausing for 30-180 seconds at a time occasionally
7 whilst they rebuild their internals, or the painfully slow random-write speeds when you throw
8 more than about 2GB at a time at them.”⁴

9 34. Another user posted: “I got recently bit by WD40EFAX [a WD Red NAS SMR
10 drive] ... When I tried to replace one of the failed WD Red disk in my vdev I started getting
11 bunch of errors... I replaced that with WD purple [a CMR drive] and haven’t had any problems
12 so far.”⁵

13 35. Some hard drive technology enthusiasts noticed that the reported problems
14 appeared to affect WD Red NAS drives below 8TB (8 terabytes) of size, with a SKU
15 containing the letters “EFAX.”

16 36. Several of these technology enthusiasts noted that, remarkably, the official
17 WDC spec sheet for the EFAX hard drives (see **Exhibit A**) indicated the EFAX drives should
18 have *better* performance than the prior version of the drives (which contained the letters
19 “EFRX”). The EFAX drives were listed with a faster “interface transfer rate” (180 MB/s versus
20 as low as 150 MB/s), and with four times as much DRAM cache (256MB versus 64MB). The
21 data sheet gave zero indication whatsoever that the EFAX drives contained SMR technology
22 (as compared to the prior EFRX versions of the “same” drives which contained the standard
23 CMR technology).

24 37. Nonetheless, some of these technology enthusiasts experiencing problems

25 _____
26 ³ See <https://community.synology.com/enu/forum/1/post/127228>.

27 ⁴ See https://np.reddit.com/r/DataHoarder/comments/fyhzl9/disguised_smr_drives_the_official_western_digital/.

28 ⁵ *Ibid.*

publicly surmised that the drives may in fact be SMR drives, because their poor write performance, RAID and NAS incompatibility, and freezing up was consistent with the limitations of SMR technology.

38. When asked whether the hard drives utilized SMR technology, WDC's public response was to **deny** it. For example, on March 30, 2020, Yemi Elegunde, an enterprise and channel sales manager for Western Digital's UK operations, expressly denied that the WD Red drives used SMR technology, stating: "The only SMR drive that Western Digital will have in production is our 20TB hard enterprise hard drives and even these will not be rolled out into the channel. All of our current range of hard drives are based on CMR Conventional Magnetic Recording."

39. Based on information and belief, WDC customer support staff were instructed to refuse to acknowledge that the WD Red NAS hard drives now utilized SMR technology. One purchaser reported WDC's response when he contacted WDC customer support to ask if the drive utilized SMR versus CMR technology: "Western Digital support has gotten back to me. They have advised me that they are not providing that information so they are unable to tell me if the drive is SMR or PMR [PMR is another term used for CMR]. LOL. He said that my question would have to be escalated to a higher team to see if they can obtain that info for me." Then, "the higher team contacted me back and informed me that the information I requested about whether or not the WD60EFAX was a SMR or PMR would not be provided to me. They said that information is not disclosed to consumers. LOL. WOW."⁶ (Emphasis added.)

40. Based on information and belief, when consumers contacted WDC to complain of the poor performance of their (SMR-technology) WD Red NAS hard drives in NAS and RAID environments, WDC as a matter of policy continued to insist that the hard drives were suitable for those environments, failed to disclose that the drives utilized (inappropriate) SMR technology, and blamed the user or the user's other equipment for the poor performance.

41. In April 2020, a leading storage technology website, Blocks & Files, began

⁶ See <https://community.synology.com/enu/forum/1/post/127228>

investigating this possible undisclosed use of SMR technology in WD Red NAS hard drives, after an information technology expert brought his suspicions to their attention. As stated in the Blocks and Files article published April 14, 2020: “Alan Brown, a network manager at UCL Mullard Space Science laboratory, the UK’s largest university-based space research group, told us about his problems adding a new WD Red NAS drive to a RAID array at his home. Although it was sold as a RAID drive, the device ‘keep[s] getting kicked out of RAID arrays due to errors during resilvering,’ he said.”⁷ Mr. Brown suspected the drive was an SMR drive, and his testing seemed to confirm his hypothesis. Mr. Brown told the website that the WD Red NAS drive’s poor performance had “been a hot-button issue in the datahoarder Reddit for over a year. People are getting pretty peeved by it because SMR drives have ROTTEN performance for random write usage.” *Ibid.*

42. Until then, WDC had never publicly admitted that the WD Red NAS drives utilized SMR technology. But, when Blocks & Files contacted WDC and asked them point-blank whether WD Red NAS drives used SMR technology, WDC realized the jig was up. WDC had been caught. WDC was finally forced to acknowledge the truth.

43. WDC stated on the record to Blocks and Files (in the article published April 14, 2020):

Currently, Western Digital’s WD Red 2TB-6TB drives are device-managed SMR (DMSMR)... You are correct that we do not specify recording technology in our WD Red HDD documentation. We strive to make the experience for our NAS customers seamless, and recording technology typically does not impact small business/home NAS-based use cases. In device-managed SMR HDDs, the drive does its internal data management during idle times. In a typical small business/home NAS environment, workloads tend to be bursty in nature, leaving sufficient idle time for garbage collection and other maintenance operations.⁸

44. Once WDC finally admitted what it had done, WDC was universally condemned by the technology press. Storage experts were in utter disbelief that WDC would do something so utterly reckless and inappropriate as sneak SMR technology into hard drives that WDC

⁷ See <https://blocksandfiles.com/2020/04/14/wd-red-nas-drives-shingled-magnetic-recording/>.

⁸ *Ibid.*

1 advertised and represented to be designed for NAS and RAID.⁹ As Alan Brown stated in a
 2 separate interview article with Block and Files, these SMR-technology WD Red NAS hard
 3 drives were “unfit for the purpose for which they are marketed.”¹⁰

4 45. As the scandal unfolded, Seagate Technology (WDC’s largest competitor)
 5 publicly stated SMR is incompatible with NAS (and RAID), and that their NAS-specific hard
 6 drives did not use SMR: “Seagate only produces NAS drives that are CMR. We do not have
 7 any SMR drives in our IronWolf and IronWolf Pro drives, which are NAS solutions...[W]e
 8 **don’t recommend SMR for NAS...** Seagate will always recommend the correct drive
 9 technology for the right application.”¹¹ (Emphasis added.)

10 46. On April 20, 2020, six days after the Blocks and Files article was published, as
 11 the fiasco and condemnation continued to snowball, WDC posted a public statement about the
 12 matter on a blog post on its website.¹² In the post, WDC acknowledged that its 2TB–6TB WD
 13 Red NAS hard drives utilized DM-SMR (drive-managed SMR technology). Meanwhile, WDC
 14 had publicly admitted in its statement to Blocks and Files that they had never previously
 15 disclosed that it had sneaked SMR technology into these previously CMR hard drives, stating:
 16 “You are correct that we do not specify recording technology in our WD Red HDD
 17 documentation.”¹³

18 47. Incredibly, WDC claimed in the blog post that the SMR technology they
 19 sneaked into the WD Red NAS hard drives was nevertheless appropriate because “The data
 20 intensity of typical small business/home NAS workloads is intermittent, leaving sufficient idle
 21

22 ⁹ E.g., see Extreme Tech article dated April 24, 2020, at
 23 [https://www.extremetech.com/computing/309730-western-digital-comes-clean-shares-which-](https://www.extremetech.com/computing/309730-western-digital-comes-clean-shares-which-hard-drives-use-smr)
 24 [hard-drives-use-smr](https://arstechnica.com/gadgets/2020/04/caveat-emptor-smr-disks-are-being-submarined-into-unexpected-channels/); Ars Technica article dated April 17, 2020, at
 25 [https://arstechnica.com/gadgets/2020/04/caveat-emptor-smr-disks-are-being-submarined-into-](https://arstechnica.com/gadgets/2020/04/caveat-emptor-smr-disks-are-being-submarined-into-unexpected-channels/)
 26 [unexpected-channels/](https://arstechnica.com/gadgets/2020/04/caveat-emptor-smr-disks-are-being-submarined-into-unexpected-channels/).

27 ¹⁰ See [https://blocksandfiles.com/2020/04/15/shingled-drives-have-non-shingled-zones-for-](https://blocksandfiles.com/2020/04/15/shingled-drives-have-non-shingled-zones-for-caching-writes/)
 28 [caching-writes/](https://blocksandfiles.com/2020/04/15/shingled-drives-have-non-shingled-zones-for-caching-writes/).

¹¹ See [https://arstechnica.com/information-technology/2020/04/seagate-says-network-attached-](https://arstechnica.com/information-technology/2020/04/seagate-says-network-attached-storage-and-smr-dont-mix/)
[storage-and-smr-dont-mix/](https://arstechnica.com/information-technology/2020/04/seagate-says-network-attached-storage-and-smr-dont-mix/).

¹² See <https://blog.westerndigital.com/wd-red-nas-drives/>.

¹³ See <https://blocksandfiles.com/2020/04/14/wd-red-nas-drives-shingled-magnetic-recording/>.

time for DMSMR drives to perform background data management tasks as needed and continue an optimal performance experience for users.”¹⁴ (Emphasis added.) This was consistent with WDC’s prior ridiculous statement to Blocks and Files that: “recording technology typically does not impact small business/home NAS-based use cases. In device-managed SMR HDDs, the drive does its internal data management during idle times. In a typical small business/home NAS environment, workloads tend to be bursty in nature, leaving sufficient idle time for garbage collection and other maintenance operations.”¹⁵

48. In other words, by these statements WDC has publicly admitted that these SMR drives are not suitable for NAS and RAID, the very purposes for which they were intended and advertised. WDC has publicly admitted that the SMR-technology WD Red NAS hard drives cannot handle continuous writes or heavy random writes, and that the drives are appropriate only for “intermittent” occasional “bursty” writes. WDC has publicly admitted that the drives require “sufficient idle time for garbage collection and other maintenance operations,” unlike CMR drives. WDC even previously released a YouTube video explaining and admitting that SMR-technology hard drives are not appropriate for random-write workloads—which is a typical and common use of NAS systems. *See* https://www.youtube.com/watch?v=_VzM3T9J1x4&feature=youtu.be.

49. “Idle time” is required for these SMR-technology WD Red NAS hard drives (like it is for all SMR hard drives) in order to prevent the temporary cache holding area (the small CMR cache layer) from filling up before the data has been transferred over to the much slower SMR main disk. Continuous sustained random writes would provide no opportunity for the hard drive to take a break to flush out the CMR cache zone, and thus would cause the temporary cache zone to completely fill up—resulting in the entire hard drive freezing up and reporting time-outs to the NAS or RAID controller and then getting kicked off of the RAID array (with potentially devastating consequences to customer data).

50. SMR hard drives (like these SMR-technology WD Red NAS drives) are by

¹⁴ See <https://blog.westerndigital.com/wd-red-nas-drives/>.

¹⁵ See <https://blocksandfiles.com/2020/04/14/wd-red-nas-drives-shingled-magnetic-recording/>

definition wholly inappropriate for NAS and RAID applications, which necessarily require continuous and sustained writes and/or heavy random writes during the RAID resilvering and RAID scrubbing processes. Meanwhile, heavy random writes (e.g., constantly writing many small files), which SMR hard drives cannot handle, are also very common and typical in NAS and RAID use cases and applications, such as, for example, in a 24x7 home office or small business networked environment.

51. Recent testing by both tech enthusiasts and NAS manufacturers has also found that the SMR-technology WD Red NAS hard drives (unlike the prior CMR versions of the drives) are particularly incompatible with ZFS (a file storage system with robust redundancy and error-correction features which is utilized in storage solutions including NAS devices), because under heavy write loads and/or resilvering the drives return Sector ID Not Found (IDNF) errors, making the drives unusable and causing data to be destroyed.

52. Yet WDC continues to (falsely) advertise and promise that these WD Red NAS drives are designed and appropriate for RAID and NAS. WDC continues to keep “NAS” in the name of these SMR drives, and continues to promise and advertise (and to provide marketing materials to its resellers that promise and advertise) that the drives are: **“purpose-built for NAS,” “Built for NAS compatibility,” “Designed for RAID environments,” “specifically designed for use in NAS systems with up to 8 bays,”** and are appropriate for **“Small and home office NAS systems in a 24x7 environment.”** These representations are blatantly false; these SMR-technology hard drives not only are inappropriate and perform poorly for their advertised and intended use in NAS and RAID applications—these hard drives are actually outright dangerous when used in those applications, putting customer data at risk.

53. Any and all purported disclosures which WDC has made regarding the WD Red NAS hard drives since WDC first publicly admitted on April 14, 2020 that it had sneaked SMR technology into the drives, have been insufficient and inadequate. The only additional disclosures or changes in its marketing that WDC has made since April 14, 2020 are to update its technical product spec sheet for the WD Red NAS series of drives to add a single line specifying either “CMR” or “SMR” recording technology for each drive, without explaining or

disclosing what that means or its significance. *See* the updated WDC product spec sheet (updated in May 2020) available on the web at https://documents.westerndigital.com/content/dam/doc-library/en_us/assets/public/western-digital/product/internal-drives/wd-red-hdd/product-brief-western-digital-wd-red-hdd.pdf, a printout of which is attached hereto as **Exhibit B**; compare to the prior version of the product spec sheet at **Exhibit A**.

54. This specification of “CMR” versus “SMR” on the new May 2020 version of the spec sheet is the principal, and possibly only, disclosure by WDC that certain WD Red NAS drives utilize SMR technology.¹⁶ (Product spec sheets are a form of advertising, as are all of the statements by Defendant quoted in this Complaint.)

55. Meanwhile, WDC has refused to change its advertising and promotion of the hard drives for NAS and RAID use. WDC continues to keep “NAS” in the product name and to make the same (now false, for the SMR drives) claims that the hard drives are “purpose-built” for NAS and RAID.

56. The disclosure of SMR versus CMR technology continues to not appear anywhere in the advertising and online brochures and specifications which customers actually see on the product webpages of WDC resellers such as Amazon.com. But even if prospective customers somehow did come across the words “SMR” or “CMR,” they would have no idea of their significance or what they meant. A reasonable consumer (the WD NAS Red drives are marketed to consumers and small businesses) would not see these strange abbreviations and understand that they completely nullify all the advertising and representations WDC is making about the drives being “purpose-built” for NAS and RAID.

57. WDC knows and intends that customers rely on WDC to specify the right drive for the right application. WDC has had (until now) a decades-long reputation for manufacturing best-in-class hard drives. As WDC itself states, “WD Red HDDs have for many years reliably

¹⁶ On this product spec sheet, WDC has acknowledged that the Red NAS hard drives which utilize SMR technology are the 2TB, 3TB, 4TB, and 6TB drives with the following SKUs: WD20EFAX, WD30EFAX, WD40EFAX, and WD60EFAX, respectively.

1 powered home and small business NAS systems around the world and have been consistently
2 validated by major NAS manufacturers. Having built this reputation...”¹⁷

3 58. Customers who purchased WD Red NAS hard drives did so because they
4 specifically wanted a hard drive appropriate for NAS and RAID use. WDC **continues** to
5 (falsely) expressly represent and advertise that these hard drives are “**specifically designed for**
6 **use in NAS systems with up to 8 bays**” and for “**Small and home office NAS systems in a**
7 **24x7 environment.**” WDC continues to state: “**Desktop drives aren’t purpose-built for**
8 **NAS. But WD Red drives with NASware technology are. Our exclusive technology takes**
9 **the guesswork out of selecting a drive... In a Network Attached Storage device, a desktop**
10 **hard drive is not typically designed for NAS environments. Do right by your NAS and**
11 **choose the drive designed for NAS with an array of features to help preserve your data**
12 **...**”¹⁸

13 59. The bottom line is that in order to cut costs and increase its profits, WDC made
14 the decision to sneak inferior SMR technology into its previously best-in-class drives, putting
15 customer data at risk. WDC was finally caught and forced to admit the truth. But WDC has
16 refused to rectify its wrongs or to change course. WDC has stubbornly and recklessly decided
17 to continue manufacturing and to continue falsely advertising these SMR-technology hard
18 drives as “purpose-built for NAS.” WDC continues to sell customers (directly and through its
19 resellers) a product **absolutely worthless** for its intended use. When the hard drives are used by
20 customers for their intended and advertised purpose, the hard drives not only perform poorly,
21 but also put customer data at increased risk.

22 60. Plaintiff Nicholas Malone, who purchased an SMR-technology WD Red NAS
23 hard drive, is one of the thousands of victims of WDC’s scheme.

24 61. In March 2020, Mr. Malone desired to purchase a NAS device along with hard
25 drives which were designed for use in that NAS device with a RAID setup. Mr. Malone wanted
26 to store his important home personal data, media files, and computer backups in a centralized,

27 ¹⁷ See <https://blog.westerndigital.com/wd-red-nas-drives/>.

28 ¹⁸ See WDC’s updated (in May 2020) WD Red NAS spec sheet at **Exhibit B**.

1 large datastore with data redundancy and security features, and had determined that a NAS
2 system utilizing RAID for redundancy and failure recovery was the best solution.

3 62. On March 6, 2020, Mr. Malone went to Amazon.com to shop for a NAS device
4 and NAS-appropriate hard drives. Mr. Malone decided to purchase a QNAP 4-Bay NAS
5 device.

6 63. Mr. Malone then began researching the options available on Amazon for four
7 6TB NAS-appropriate hard drives to put into the QNAP NAS device. Mr. Malone previously
8 had purchased and had been happy with many WDC hard drives over the years, and he
9 understood them to have a good reputation for reliability and quality. Mr. Malone browsed the
10 Amazon product webpage for the WD Red NAS 6TB hard drive, and viewed the advertising
11 and product information (which was provided to Amazon by WDC). Besides seeing that the
12 drive had “NAS” in the product name, Mr. Malone viewed the prominent bullet points on the
13 product webpage which stated: **“Specifically designed for use in NAS systems with up to 8**
14 **bays,” “Small and home office NAS systems in a 24/7 environment,” and “NASware**
15 **firmware for compatibility.”**

16 64. Lower down on the product webpage for the WD Red NAS 6TB hard drive was
17 a colorful product brochure labeled: “From the manufacturer.” Mr. Malone viewed the
18 representations there, including: **“There’s a leading edge WD Red drive for every**
19 **compatible NAS system to help fulfill your data storage needs... WD Red drives pack the**
20 **power to store your precious data in one powerhouse unit” and “3D Active Balance Plus.**
21 **Helps ensure your data is protected ... in a NAS or RAID environment.”** Based on these
22 representations, Mr. Malone reasonably believed and understood the WD Red NAS 6TB hard
23 drive was specifically designed and built for NAS device RAID environments like the QNAP
24 system he intended to purchase and set up (unlike cheaper consumer desktop hard drives which
25 were not purpose-built for NAS and RAID). Mr. Malone had no idea the hard drives in fact
26 utilized inferior SMR technology, which was not disclosed to him.

27 65. Mr. Malone also viewed the product webpage for a NAS hard drive from a
28 competing manufacturer, the Seagate IronWolf 6TB NAS hard drive. The Seagate hard drive

1 was likewise advertised as having been designed and built for NAS and RAID for devices with
2 up to 8 drive bays.

3 66. Relying on the representations regarding the WD Red NAS 6TB hard drive on
4 the Amazon webpage, and also based on his prior good experience with WDC hard drives,
5 Mr. Malone decided to purchase four of the WD Red NAS 6TB hard drives for \$150.12 each,
6 paying a total of \$600.48 plus tax. The SKU for the hard drives was WD60EFAX. Mr. Malone
7 also purchased the QNAP NAS device (the QNAP TS-453Be-4G-US) for \$548.89 plus tax.

8 67. After receiving the WD Red NAS hard drives and QNAP NAS device,
9 Mr. Malone installed the hard drives into the QNAP and set up the device with RAID 5
10 redundancy.

11 68. Over the next month and a half, Mr. Malone gradually moved and copied his
12 personal data and media files over to the NAS, and also stored backups of his computer system,
13 filing the NAS with almost 18TB of important and valuable data.

14 69. In late April or early May 2020, Mr. Malone viewed a YouTube video about
15 NAS setup and storage. During the video, the narrator began talking about the recent scandal
16 about WDC having admitted that their WD Red NAS hard drives utilized SMR technology.
17 The narrator explained that the SMR technology was inappropriate for NAS systems and
18 should not have been advertised and sold for that purpose by WDC.

19 70. After viewing this video, Mr. Malone became concerned that he had purchased
20 these (falsely advertised) SMR-technology WD Red NAS hard drives. After researching the
21 matter further, he learned that the four hard drives he had purchased (with the SKU
22 WD60EFAX) did indeed utilize SMR recording technology.

23 71. Mr. Malone had been defrauded. Mr. Malone had bought the hard drives based
24 on WDC's representations that the drives were purpose-built for NAS and RAID, and had
25 specifically purchased and set up his system for the redundancy and failure recovery features
26 that NAS with RAID provided. But the hard drives he purchased, contrary to WDC's express
27 representations, were not appropriate for NAS or RAID, and his data was now at risk. In fact,
28

1 the hard drives are completely worthless—and are in fact dangerous—when used for their
2 intended and advertised purpose.

3 72. Mr. Malone was now, and continues to be, extremely upset and worried about
4 losing his data. The failure of a single drive could result in the loss of data due to the inability
5 to rebuild the RAID array. Mr. Malone is also unable to perform recommended and standard
6 RAID “scrubbing” to ensure the integrity of his data and to automatically correct any disk
7 errors, because the process could cause one or more hard drives to be kicked out of the RAID
8 array, potentially causing data loss. In order to secure and protect his data, Mr. Malone now
9 must now expend hundreds more dollars and many hours of his time to purchase several
10 external hard drives and/or a second NAS, and then copy his data over to the new storage.

11 73. WDC’s misrepresentations and failures to disclose were false and misleading
12 and in violation of California law.

13 74. To be clear, Mr. Malone is bringing claims under California’s Unfair
14 Competition Law, False Advertising Law, and Consumers Legal Remedies Act for false
15 advertising and deceptive practices. Mr. Malone is not alleging the hard drives are defective;
16 this is not a design defect case. Rather, this case is about false advertising, where WDC is being
17 accused of advertising hard drives as suitable for a certain intended use and purpose (for NAS
18 and RAID), when in fact those hard drives are not at all suitable for that intended use and
19 purpose.

20 75. These misrepresentations and omissions by WDC are material, in that they are
21 the type of representations on which an ordinary person would reasonably rely upon in
22 conducting his or her affairs.

23 76. Mr. Malone reasonably relied on WDC’s misrepresentations and omissions of
24 material facts. If Mr. Malone had known that the WD Red NAS hard drives he purchased
25 utilized recording technology which was completely inappropriate for their intended and
26 advertised use, Mr. Malone would not have purchased the hard drives. Mr. Malone would have
27 purchased different hard drives that were truly appropriate for NAS and RAID use, such as the
28 Seagate IronWolf 6TB NAS hard drive that he had also considered during his shopping process

1 on Amazon.com. In fact, no other leading hard drive manufacturer uses this inferior SMR
2 technology in their hard drives that are labeled for NAS or RAID use.

3 77. As a direct and proximate result of WDC's acts and omissions, Mr. Malone was
4 harmed, suffered an injury-in-fact, and lost money or property.

5 78. Mr. Malone has a legal right to rely now, and in the future, on the truthfulness
6 and accuracy of WDC's representations.

7 79. Mr. Malone would purchase WD NAS hard drives again if he could have
8 confidence regarding the truth of WDC's representations regarding their appropriateness and
9 fitness for NAS systems and RAID.

10 80. Mr. Malone will be harmed if, in the future, he is left to guess as to whether
11 WDC's representations are accurate and whether there are omissions of material facts regarding
12 the features or specifications of WDC's NAS hard drives.

13 81. If Mr. Malone were to purchase a WD NAS hard drive again without WDC
14 having changed its unlawful and deceptive conduct alleged herein, Mr. Malone would be
15 harmed on an ongoing basis and/or would be harmed once or more in the future.

16 82. The Defendant is primarily engaged in the business of selling or leasing goods
17 or services. Each cause of action brought by Plaintiff and the Class against Defendant in this
18 pleading arises from and is limited to statements or conduct by Defendant that consist of
19 representations of fact about Defendant's business operations, goods or services that is or was
20 made for the purpose of obtaining approval for, promoting, or securing sales or leases of, or
21 commercial transactions in Defendant's goods or services or the statement is or was made in
22 the course of delivering Defendant's goods or services. Each cause of action brought by
23 Plaintiff and the Class against Defendant in this pleading arises from and is limited to
24 statements or conduct by Defendant for which the intended audience is an actual or potential
25 buyer or customer, or a person likely to repeat the statements to, or otherwise influence, an
26 actual or potential buyer or customer.

CLASS ACTION ALLEGATIONS

83. Plaintiff Nicholas Malone brings this lawsuit on behalf of himself and all others similarly situated, pursuant to Federal Rules of Civil Procedure 23(a), (b)(2), and (b)(3).

84. Plaintiff seeks to represent the following nationwide Class:

All United States residents who, during the applicable limitations period, purchased any Western Digital WD Red NAS Drive with SMR recording technology.

85. Specifically excluded from the Class are Defendant, any entity in which a Defendant has a controlling interest or which has a controlling interest in Defendant, Defendant's agents and employees and attorneys, the bench officers to whom this civil action is assigned, and the members of each bench officer's staff and immediate family.

86. **Numerosity.** Plaintiff does not know the exact number of class members, but is informed and believe that the Class easily comprises thousands of individuals. As such, class members are so numerous that joinder of all members is impracticable.

87. **Commonality and Predominance.** Well-defined, identical legal or factual questions affect the members of the Class. All claims in this matter arise from the identical written advertising and omissions of material facts regarding the WD Red NAS hard drives purchased by the Class. These questions predominate over questions that might affect individual class members. These common questions include, but are not limited to, the following:

a. Whether Defendant's conduct as outlined herein violated the False Advertising Law, California Business and Professions Code § 17500 *et seq.*;

b. Whether Defendant's conduct as outlined herein violated the Consumers Legal Remedies Act, California Civil Code § 1750 *et seq.*;

c. Whether Defendant's conduct as outlined herein violated California's Unfair Competition Law, California Business and Professions Code § 17200 *et seq.*;

d. Whether Defendant's misrepresentations and omissions alleged herein constitute fraudulent concealment under California law;

e. Whether Plaintiff and the Class have suffered injury and have lost money or property as a result of Defendant's misrepresentations and omissions alleged herein;

f. Whether Defendant should be ordered to disgorge its unjust enrichment;

g. Whether Defendant should be enjoined from further engaging in the misconduct alleged herein; and/or

h. Whether Plaintiff and the Class are entitled to an order for class-wide injunctive relief, imposing equitable remedies such as restitution and/or requiring WDC to: (1) provide notice to every class member that the WD Red NAS hard drive they purchased is not suited for its intended purpose; and (2) either provide a full refund to Plaintiff and the Class for their WD Red NAS hard drives, or provide Plaintiff and the Class with replacement CMR-technology hard drives that are truly suited for use with NAS devices and RAID, at no additional cost.

88. The prosecution of separate actions by individual members of the Class would create a risk of inconsistent or varying adjudications with respect to individual members of the Class which would establish incompatible standards of conduct for the party opposing the Class.

89. **Typicality.** Plaintiff is a member of the Class he seeks to represent. The claims of Plaintiff are typical of all class members.

90. All claims of Plaintiff and the Class arise from the same misrepresentations and omissions of material fact.

91. All claims of Plaintiff and the Class are based on the same legal theories.

92. **Adequacy.** Plaintiff has no interest antagonistic to, or in conflict with the Class. Plaintiff will thoroughly and adequately protect the interests of the Class, having retained qualified and competent legal counsel to represent himself and the Class.

93. Further, a class action is superior to all other available methods for fairly and efficiently adjudicating this controversy. Each class member's interests are small compared to the burden and expense required to litigate each of their claims individually, so it would be impractical and would not make economic sense for class members to seek individual redress

1 for Defendant's conduct. Individual litigation would add administrative burden on the courts,
 2 increasing the delay and expense to all parties and to the court system. Individual litigation
 3 would also create the potential for inconsistent or contradictory judgments regarding the same
 4 uniform conduct. A single adjudication would create economies of scale and comprehensive
 5 supervision by a single judge. Moreover, Plaintiff does not anticipate any difficulties in
 6 managing a class action trial.

7 94. By its conduct and omissions alleged herein, Defendant has acted and refused to
 8 act on grounds that apply generally to the Class, such that final injunctive relief and/or
 9 declaratory relief is appropriate with respect to the Class as a whole.

10 95. The prosecution of separate actions by individual class members would create a
 11 risk of inconsistent or varying adjudications.

12 96. A class action is the only practical, available method for the fair and efficient
 13 adjudication of the controversy since, *inter alia*, the damages suffered by each class member
 14 are too small to make individual actions economically feasible.

15 97. Common questions will predominate, and there will be no unusual
 16 manageability issues.

17 CAUSES OF ACTION

18 COUNT I

19 **Violation of the Consumers Legal Remedies Act California Civil Code § 1750 *et seq.***

20 98. Plaintiff realleges and incorporates by reference all paragraphs previously
 21 alleged herein.

22 99. Plaintiff brings this claim in his individual capacity, in his capacity as a private
 23 attorney general seeking the imposition of public injunctive relief, and/or as a representative of
 24 the Class.

25 100. Defendant is a "person," as defined by California Civil Code § 1761(c).

26 101. Plaintiff and class members are "consumers," as defined by California Civil
 27 Code § 1761(d).
 28

102. The WD Red NAS hard drives purchased by Plaintiff and the class members are “goods” as defined by California Civil Code § 1761(a).

103. The purchases by Plaintiff and the class members constitute “transactions,” as defined by California Civil Code § 1761(e).

104. The unlawful methods, acts or practices alleged herein to have been undertaken by Defendant were all committed intentionally and knowingly. The unlawful methods, acts or practices alleged herein to have been undertaken by Defendant did not result from a *bona fide* error notwithstanding the use of reasonable procedures adopted to avoid such error.

105. With regard to this count of the pleading which alleges one or more violations of the CLRA, venue is proper in San Jose, California (the county in which this action has been commenced) pursuant to Section 1780(d) of the California Civil Code because, without limitation, San Jose County is a county in which Defendant is doing business and is the county in which WDC is headquartered. A declaration establishing that this Court has proper venue for this count is attached hereto as **Exhibit C**.

106. Defendant’s methods, acts and/or practices, including Defendant’s misrepresentations, active concealment, and/or failures to disclose, violated and continue to violate the CLRA in ways including, but not limited to, the following:

a. Defendant misrepresented that its products had characteristics, benefits, or uses that they did not have (Cal. Civ. Code § 1770(a)(5));

b. Defendant misrepresented that its products were of a particular standard, quality, grade, or of a particular style or model when the products were of another (Cal. Civ. Code § 1770(a)(7));

c. Defendant advertised its products with an intent not to sell them as advertised (Cal. Civ. Code § 1770(a)(9)); and

d. Defendant represented that its products were supplied in accordance with previous representations when they were not (Cal. Civ. Code § 1770(a)(16)).

107. Specifically, Defendant advertised and represented that these WD Red NAS hard drives were suitable for the particular purpose of NAS and RAID, when in fact the hard

1 drives were not suitable for that purpose and were actually outright dangerous when used for
2 that purpose.

3 108. With respect to omissions, Defendant at all relevant times had a duty to disclose
4 the information in question because, *inter alia*: (a) Defendant had exclusive knowledge of
5 material information that was not known to Plaintiff and the Class; (b) Defendant concealed
6 material information from Plaintiff and the Class; and/or (c) Defendant made partial
7 representations which were false and misleading absent the omitted information.

8 109. Defendant's misrepresentations and nondisclosures deceive and have a tendency
9 and ability to deceive the general public.

10 110. Defendant's misrepresentations and nondisclosures are material, in that a
11 reasonable person would attach importance to the information and would be induced to act on
12 the information in making purchase decisions. Indeed, the utility and value of Defendant's WD
13 Red NAS hard drives with SMR technology are significantly reduced, to the point of
14 worthlessness, because these drives should not and cannot be used for their intended and
15 advertised purpose of NAS or RAID.

16 111. As a direct and proximate result of Defendant's unfair, unlawful, and fraudulent
17 conduct, Plaintiff and the Class suffered injury-in-fact and lost money.

18 112. But for Defendant's deceptive conduct and omissions of material facts, Plaintiff
19 and the Class would not have purchased the subject hard drives and/or would have purchased
20 an appropriate hard drive from one of Defendant's competitors instead. Defendant's conduct as
21 alleged herein caused substantial injury to Plaintiff, class members, and the public. Defendant's
22 conduct is ongoing and will continue and recur absent a permanent injunction. Accordingly,
23 Plaintiff and the Class seek an order enjoining Defendant from committing such practices.

24 113. If not enjoined by order of this Court, Defendant is free to resume its unlawful
25 behavior and injure Plaintiff and consumers through the misconduct alleged herein once more.
26 Defendant has a duty to speak truthfully or in a non-misleading manner.

27 114. Plaintiff would purchase WD NAS hard drives again if he could have
28 confidence regarding the truth of WDC's representations regarding their appropriateness and

1 fitness for NAS systems and RAID.

2 115. Plaintiff will be harmed if, in the future, he is left to guess as to whether WDC's
3 representations are accurate and whether there are omissions of material facts regarding the
4 features or specifications of WDC's NAS hard drives.

5 116. If Plaintiff were to purchase a WD NAS hard drive again without WDC having
6 changed its unlawful and deceptive conduct alleged herein, Plaintiff would be harmed on an
7 ongoing basis and/or would be harmed once or more in the future.

8 117. In order to prevent injury to the general public, Plaintiff, in his individual
9 capacity, seeks a public injunction requiring WDC to stop advertising, and to instruct its
10 resellers to stop advertising, any hard drives with SMR technology as being appropriate for
11 NAS devices or RAID (including by removing "NAS" from such products' names).

12 118. The balance of the equities favors the entry of permanent injunctive relief
13 against Defendant. Plaintiff and the general public will be irreparably harmed absent the entry
14 of permanent injunctive relief against Defendant. Plaintiff and the general public lack an
15 adequate remedy at law. A permanent injunction against Defendant is in the public interest.
16 Defendant's unlawful behavior is capable of repetition or re-occurrence absent the entry of a
17 permanent injunction.

18 119. Plaintiff does not currently seek damages in this Complaint under the CLRA.

19 120. In accordance with California Civil Code § 1782(a), Plaintiff, through counsel,
20 intends to promptly serve Defendant with notice of its CLRA violations by USPS certified
21 mail, return receipt requested.

22 121. If Defendant fails to provide appropriate relief for its CLRA violations within 30
23 days of its receipt of Plaintiff's notification letter, Plaintiff will amend this complaint to seek
24 compensatory and exemplary damages as permitted by Cal. Civ. Code §§ 1780 and 1782(b),
25 along with attorneys' fees and costs.

COUNT II

**Violation of California's False Advertising Law
California Business and Professions Code § 17500 *et seq.***

122. Plaintiff realleges and incorporates by reference all paragraphs previously alleged herein.

123. Plaintiff brings this claim in his individual capacity, in his capacity as a private attorney general seeking the imposition of public injunctive relief, and/or as a representative of the putative Class.

124. Defendant has engaged in false or misleading advertising in violation of California's statutory False Advertising Law ("FAL").

125. Defendant's conduct as described herein is misleading, and/or has a capacity, likelihood or tendency to deceive reasonable consumers.

126. Defendant, with intent directly or indirectly to dispose of personal property or to perform services, or to induce the public to enter into any obligation relating thereto, makes, disseminates, has made or disseminated, causes to be made or disseminated, and/or has caused to be made or disseminated, before the public in California, in newspaper or other publication, or other advertising device, or by public outcry or by proclamation, or in any other manner or means, including over the internet, statements concerning that personal property or those services, and/or concerning any circumstance or matter of fact connected with the proposed performance or disposition thereof, which are untrue or misleading and which are known (or which by the exercise of reasonable care should be known) to be untrue or misleading.

127. With respect to omissions, Defendant at all relevant times had a duty to disclose the information in question because, *inter alia*: (a) Defendant had exclusive knowledge of material information that was not known to Plaintiff and the Class; (b) Defendant concealed material information from Plaintiff and the Class; and/or (c) Defendant made partial representations which were false and misleading absent the omitted information.

128. Defendant committed such violations of the False Advertising Law with actual knowledge that its advertising was misleading, or Defendant, in the exercise of reasonable care, should have known that its advertising was misleading.

129. Plaintiff and the Class reasonably relied on Defendant's representations and/or omissions made in violation of the False Advertising Law.

130. As a direct and proximate result of Defendant's unfair, unlawful, and fraudulent conduct, Plaintiff and the Class suffered injury-in-fact and lost money.

131. But for Defendant's deceptive conduct and omissions of material facts, Plaintiff and the Class would not have purchased the subject hard drives and/or would have purchased an appropriate hard drive from one of Defendant's competitors instead.

132. Defendant should be ordered to disgorge or make restitution of all monies improperly accepted, received, or retained.

133. Defendant's conduct has caused substantial injury to Plaintiff, class members, and the public. Defendant's conduct is ongoing and will continue and recur absent a permanent injunction. Accordingly, Plaintiff seeks an order enjoining Defendant from committing such violations of the FAL. Plaintiff further seeks an order granting restitution to Plaintiff and the Class in an amount to be proven at trial. Plaintiff further seeks an award of attorneys' fees and costs under Cal. Code Civ. Proc. § 1021.5.

134. Plaintiff, on behalf of himself and the Class, seeks injunctive relief to require Defendant to: (1) provide notice to every class member that the WD Red NAS hard drive they purchased is not suited for its intended purpose; and (2) either provide a full refund to Plaintiff and the Class for their WD Red NAS hard drives, or provide Plaintiff and the Class with replacement CMR-technology hard drives that are truly suited for use with NAS devices and RAID, at no additional cost.

135. Absent injunctive relief, Defendant will continue to injure Plaintiff and the class members. Even if such conduct were to cease, it is behavior that is capable of repetition or reoccurrence by Defendant.

136. In order to prevent injury to the general public, Plaintiff, in his individual capacity, seeks a public injunction requiring WDC to stop advertising, and to instruct its resellers to stop advertising, any hard drives with SMR technology as being appropriate for NAS devices or RAID (including by removing "NAS" from such products' names).

137. Plaintiff and the general public lack an adequate remedy at law to remedy and/or mitigate the totality of the injuries and misconduct described herein.

COUNT III
Violation of California's Unfair Competition Law
California Business and Professions Code § 17200 *et seq.*

138. Plaintiff realleges and incorporates by reference all paragraphs previously alleged herein.

139. Plaintiff brings this claim in his individual capacity, in his capacity as a private attorney general seeking the imposition of public injunctive relief, and/or as a representative of a putative Class.

140. Defendant's acts and omissions alleged herein constitute unfair competition and/or unlawful, unfair, or fraudulent business practices in violation of California Business and Professions Code § 17200 *et seq.* (the "Unfair Competition Law" or "UCL").

141. Defendant's conduct and omissions alleged herein are immoral, unethical, oppressive, unscrupulous, unconscionable, and/or substantially injurious to Plaintiff and the Class. There is no utility to Defendant's conduct, and even if there were any utility, it would be significantly outweighed by the gravity of the harm to consumers caused by Defendant's conduct alleged herein.

142. Defendant's conduct and omissions alleged herein also violate California public policy, including as such policy is reflected in Cal. Civ. Code § 1750 *et seq.* and Cal. Civ. Code §§ 1709-1710.

143. By its conduct and omissions alleged herein, Defendant has violated the "unlawful" prong of the UCL, including by making material misrepresentations and omissions in violation of Cal. Bus. & Prof. Code § 17500 *et seq.* and Cal. Civ. Code § 1750, *et seq.*; and engaging in deceit and fraudulent concealment in violation of Cal Civ. Code §§ 1709-1710, *et seq.*

144. With respect to omissions, Defendant at all relevant times had a duty to disclose the information in question because, *inter alia*: (a) Defendant had exclusive knowledge of material information that was not known to Plaintiff and the Class; (b) Defendant concealed

1 material information from Plaintiff and the Class; and/or (c) Defendant made partial
2 representations which were false and misleading absent the omitted information.

3 145. Defendant's material misrepresentations and nondisclosures were likely to
4 mislead reasonable consumers, existing and potential customers, and the public.

5 146. Defendant's nondisclosures and omissions of material facts deceive and have a
6 tendency to deceive the general public and reasonable consumers, and therefore were unfair
7 and fraudulent.

8 147. Defendant's nondisclosures and omissions of material facts are material, such
9 that a reasonable person would attach importance to the information and would be induced to
10 act on the omissions in making purchase decisions.

11 148. Plaintiff and members of the class reasonably relied on Defendant's
12 nondisclosures and omissions of material facts.

13 149. By its conduct and omissions alleged herein, Defendant received more money
14 from Plaintiff and the Class than it should have received, and that money is subject to
15 restitution.

16 150. As a direct and proximate result of Defendant's unfair, unlawful, and fraudulent
17 conduct, Plaintiff and the Class suffered injury-in-fact and lost money.

18 151. But for Defendant's deceptive conduct and omissions of material facts, Plaintiff
19 and the Class would not have purchased the subject hard drives and/or would have purchased
20 an appropriate hard drive from one of Defendant's competitors instead.

21 152. Plaintiff, on behalf of himself and the Class, seeks injunctive relief to require
22 Defendant to: (1) provide notice to every class member that the WD Red NAS hard drive they
23 purchased is not suited for its intended purpose; and (2) either provide a full refund to Plaintiff
24 and the Class for their WD Red NAS hard drives, or provide Plaintiff and the Class with
25 replacement CMR-technology hard drives that are truly suited for use with NAS devices and
26 RAID, at no additional cost.

27 153. Defendant's conduct has caused substantial injury to Plaintiff, class members,
28 and the public. Defendant's conduct is ongoing and will continue and recur absent a permanent

injunction. Accordingly, Plaintiff seeks an order enjoining Defendant from committing such unlawful, unfair, and fraudulent business practices. Plaintiff further seeks an order granting restitution to Plaintiff and the Class in an amount to be proven at trial. Plaintiff further seeks an award of attorneys' fees and costs under Cal. Code Civ. Proc. § 1021.5.

154. Plaintiff and the general public lack an adequate remedy at law to remedy and/or mitigate the totality of the injuries and misconduct described herein.

155. Absent injunctive relief, Defendant will continue to injure Plaintiff and the class members. Defendant's conduct and omissions of material fact are ongoing. And, even if such conduct were to cease, it is behavior that is capable of repetition or reoccurrence by Defendant.

156. In order to prevent injury to the general public, Plaintiff, in his individual capacity, seeks a public injunction requiring WDC to stop advertising, and to instruct its resellers to stop advertising, any hard drives with SMR technology as being appropriate for NAS devices or RAID (including by removing "NAS" from such products' names).

PRAYER FOR RELIEF

1. In order to prevent injury to the general public, Plaintiff Nicholas Malone, in his individual capacity, seeks a public injunction requiring Defendant Western Digital Corporation to stop advertising, and to instruct its resellers to stop advertising, any hard drives with SMR technology as being appropriate for NAS devices or RAID (including by removing "NAS" from such products' names).

2. Further, on behalf of himself and the proposed Class, Plaintiff requests that the Court order relief and enter judgment against Defendant as follows:

- a. Declare this action to be a proper class action, certifying the Class defined herein, and appoint Plaintiff and his counsel to represent the Class;
- b. Declare Defendant's conduct to be in violation of applicable law;
- c. Order disgorgement or restitution, including, without limitation, disgorgement of all revenues, profits and/or unjust enrichment that Defendant obtained, directly or indirectly, from Plaintiff and the members of the class or otherwise as a result of the unlawful conduct alleged herein;

- d. Permanently enjoin Defendant from the unlawful conduct alleged herein;
- e. Retain jurisdiction to police Defendant's compliance with the permanent injunctive relief;
- f. Order Defendant to: (1) provide notice to every class member that the WD Red NAS hard drive they purchased is not suited for its intended purpose; and (2) either provide a full refund to Plaintiff and the Class for their WD Red NAS hard drives, or provide Plaintiff and the Class with replacement CMR-technology hard drives that are truly suited for use with NAS devices and RAID, at no additional cost;
- g. Order Defendant to pay attorneys' fees, costs, and pre-judgment and post-judgment interest to the extent allowed by law; and
- h. Provide all other relief to which Plaintiff and the Class may show themselves justly entitled.

JURY DEMAND

Plaintiff Nicholas Malone, on behalf of himself and on behalf of the Class, demands a trial by jury on all issues so triable.

DATED this 28th day of May, 2020.

Presented by:

HATTIS & LUKACS

By: 

Daniel M. Hattis (SBN 232141)

Paul Karl Lukacs (SBN 197007)

HATTIS & LUKACS

400 108th Ave NE, Ste 500

Bellevue, WA 98004

Telephone: (425) 233-8650

Facsimile: (425) 412-7171

Email: dan@hattislaw.com

Email: pkl@hattislaw.com

Attorneys for Plaintiff and the Proposed Class

EXHIBIT A



Highlights

- Specifically designed for use in NAS systems with up to 8 bays
- Supports up to 180 TB/yr workload rate*
- NASware technology for compatibility
- 3-year limited warranty
- Small and home office NAS systems in a 24x7 environment

INTERFACE

SATA 6 Gb/s

FORM FACTOR

3.5 and 2.5-inch

CAPACITIES

3.5-inch: 1TB to 14TB

2.5-inch: 1TB

MODEL NUMBERS

3.5-inch:

WD140EFFX
WD120EFAX
WD101EFAX
WD100EFAX
WD80EFAX
WD60EFAX
WD60EFRX
WD40EFAX
WD40EFRX
WD30EFAX
WD30EFRX
WD20EFAX
WD20EFRX
WD10EFRX

2.5-inch:

WD10JFCX

There's a leading edge WD Red drive for every compatible NAS system to help fulfill your data storage needs. With drives up to 14TB, WD Red drives offer a wide array of solutions for customers looking to build a NAS storage solution. Built for single-bay to 8-bay NAS systems, WD Red drives pack the power to store your precious data in one powerhouse unit. With WD Red drives, you're ready for what's next.

Exclusive NASware™ 3.0

Not just any drive will do. In single-bay to 8-bay NAS systems, WD Red drives raise the bar. Get as much as 112TB capacity, and with WD's exclusive NASware™ technology, you can optimize every single one of them. Built into every WD Red hard drive, NASware 3.0's advanced technology improves your system's storage performance by increasing compatibility, integration, upgradeability, and reliability.

Built for optimum NAS compatibility

Desktop drives aren't purpose-built for NAS. But WD Red drives with NASware technology are. Our exclusive technology takes the guesswork out of selecting a drive. WD Red drives are for small NAS systems, and our unique algorithm balances performance and reliability in NAS and RAID environments. Simply put, a WD Red drive is one of the most compatible drives available for NAS enclosures. But don't take our word for it. WD Red drives are a reflection of extensive NAS partner technology engagement and compatibility-testing resulting in a leading compatibility list for NAS systems.

Desktop Drives vs. WD Red

In a Network Attached Storage device, a desktop hard drive is not typically designed for NAS environments. Do right by your NAS and choose the drive designed for NAS with an array of features to help preserve your data and maintain optimum performance. Take the following into consideration when choosing a hard drive for your NAS:

- **Compatibility:** Without being tested for compatibility with your NAS system, optimum performance is not guaranteed.
- **Reliability:** The always-on environment of a NAS or RAID is a challenging one. And desktop drives aren't typically designed and tested under those conditions. WD Red drives are.
- **Error recovery controls:** WD Red NAS hard drives are specifically designed with RAID error recovery control to help reduce failures within the NAS system. Desktop drives are not typically designed for RAID environments.
- **Noise and Vibration Protection:** Designed to operate solo, desktop drives typically offer little or no protection from the noise and vibration present in a multi-drive system. WD Red drives are designed for multi-bay NAS systems.

WD Red for Home

Stream, backup, share, and organize your digital content at home with a NAS and WD Red drives designed to effortlessly share content with the devices in your home. NASware 3.0 technology increases your drives' compatibility with your devices, TV, stereo, and more. Live in a connected world.

WD Red for Small Business

Businesses thrive on productivity and efficiency—two of the guiding principles built into the design of WD Red drives. It's the hard drive of choice for 1 to 8 bay systems. NASware 3.0 technology allows for seamless integration with your existing network so WD Red can share and backup files at the speed of your business. And for larger businesses with up to 24-bays, count on WD Red Pro™ drives.

WD Red Pro for Big Business

If you're looking for maximum performance in a heavy use NAS, WD Red Pro drives deliver the same exceptional performance for the business customer. For NAS environments with 8 to 24 bays, WD Red Pro drives are designed to handle an increase in workload and comes with a 5-year limited warranty.

*Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

THE WESTERN DIGITAL ADVANTAGE

Western Digital puts our products through extensive Functional Integrity Testing (F.I.T.) prior to any product launch. This testing ensures our products consistently meet the quality and reliability standards of the Western Digital brand. WD also has a detailed Knowledge Base with more than 1,000 helpful articles as well as helpful software and utilities. Our toll-free customer support lines are here to help or you can access our WD Support site for additional details.

Specifications

	14TB	12TB	10TB	10TB	8TB
Model Number¹	WD140EFFX	WD120EFAX	WD101EFAX	WD100EFAX	WD80EFAX
Interface ²	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	14TB	12TB	10TB	10TB	8TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Native command queuing	Yes	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
RoHS compliant ³	Yes	Yes	Yes	Yes	Yes
Performance					
Interface Transfer Rate ² up to	210 MB/s	196 MB/s	215 MB/s	210 MB/s	198 MB/s
Cache (MB) ²	512	256	256	256	256
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class
Reliability/Data Integrity					
Load/unload cycles ⁴	600,000	600,000	600,000	600,000	600,000
Non-recoverable errors per bits read	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴
MTBF (hours) ⁵	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year) ⁶	180	180	180	180	180
Limited warranty (years) ⁷	3	3	3	3	3
Power Management⁸					
12VDC ±5% (A, peak)	1.85	1.84	1.75	1.79	1.85
5VDC ±5% (A, peak)					
Average power requirements (W)					
Read/Write	6.5	6.3	8.4	5.7	8.8
Idle	3.0	2.9	4.6	2.8	5.3
Standby and Sleep	0.8	0.6	0.5	0.5	0.8
Environmental Specifications⁹					
Temperature (°C)					
Operating	0 to 65	0 to 65	0 to 65	0 to 65	0 to 65
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating, (2 ms, read/write)	30	30	30	30	30
Operating, (2 ms, read)	65	65	65	65	65
Non-operating (2 ms)	300	300	250	300	300
Acoustics (dBA) ¹⁰					
Idle	20	20	34	20	27
Seek (average)	29	29	38	29	29
Physical Dimensions					
Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb/kg, ± 10%)	1.52/0.69	1.46/0.66	1.65/0.75	1.43/0.65	1.58/0.715

Specifications subject to change without notice.

¹ Not all products may be available in all regions of the world.² As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details. Performance will vary depending on your hardware and software components and configurations.³ WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.⁴ Controlled unload at ambient condition.⁵ MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not

predict an individual drive's reliability and does not constitute a warranty.

⁶ Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.⁷ See support.wdc.com/warranty for regionally specific warranty details.⁸ Power measurements at room-ambient temperature.⁹ No non-recoverable errors during operating tests or after non-operating tests.¹⁰ Sound power level.

Specifications

	6TB	6TB	4TB	4TB	3TB
Model Number¹	WD60EFAX	WD60EFRX	WD40EFAX	WD40EFRX	WD30EFAX
Interface ²	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	6TB	6TB	4TB	4TB	3TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Native command queuing	Yes	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
RoHS compliant ³	Yes	Yes	Yes	Yes	Yes
Performance					
Interface Transfer Rate ² up to	180 MB/s	175 MB/s	180 MB/s	150 MB/s	180 MB/s
Cache (MB) ²	256	64	256	64	256
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class
Reliability/Data Integrity					
Load/unload cycles ⁴	600,000	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴
MTBF (hours) ⁵	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year) ⁶	180	180	180	180	180
Limited warranty (years) ⁷	3	3	3	3	3
Power Management⁸					
12VDC ±5% (A, peak)	1.75	1.75	1.75	1.75	1.75
5VDC ±5% (A, peak)					
Average power requirements (W)					
Read/Write	4.8	5.3	4.8	4.5	4.8
Idle	3.1	3.4	3.1	3.3	3.1
Standby and Sleep	0.6	0.4	0.4	0.4	0.4
Environmental Specifications⁹					
Temperature (°C)					
Operating	0 to 60	0 to 60	0 to 60	0 to 60	0 to 65
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating, (2 ms, read/write)	30	30	30	30	30
Operating, (2 ms, read)	65	65	65	65	65
Non-operating (2 ms)	250	250	250	250	250
Acoustics (dBA) ¹⁰					
Idle	23	25	23	25	23
Seek (average)	27	28	27	28	27
Physical Dimensions					
Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb/kg, ± 10%)		1.65/0.75	1.26/0.57	1.50/0.68	1.40/0.64

Specifications subject to change without notice.

¹ Not all products may be available in all regions of the world.

² As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details. Performance will vary depending on your hardware and software components and configurations.

³ WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

⁴ Controlled unload at ambient condition.

⁵ MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not predict an individual drive's reliability and does not constitute a warranty.

⁶ Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

⁷ See support.wdc.com/warranty for regionally specific warranty details.

⁸ Power measurements at room-ambient temperature.

⁹ No non-recoverable errors during operating tests or after non-operating tests.

¹⁰ Sound power level.

Specifications

	3TB	2TB	2TB	1TB	1TB
Model Number¹	WD30EFRX	WD20EFAX	WD20EFRX	WD10EFRX	WD10JFCX
Interface ²	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	3TB	2TB	2TB	1TB	1TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	2.5-inch
Native command queuing	Yes	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
RoHS compliant ³	Yes	Yes	Yes	Yes	Yes
Performance					
Interface Transfer Rate ² up to	147 MB/s	180 MB/s	147 MB/s	150 MB/s	144 MB/s
Cache (MB) ²	64	256	64	64	16
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class
Reliability/Data Integrity					
Load/unload cycles ⁴	600,000	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴
MTBF (hours) ⁵	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year) ⁶	180	180	180	180	180
Limited warranty (years) ⁷	3	3	3	3	3
Power Management⁸					
12VDC ±5% (A, peak)	1.73	1.31	1.73	1.20	
5VDC ±5% (A, peak)					1.00
Average power requirements (W)					
Read/Write	4.1	4.1	4.1	3.3	1.4
Idle	2.7	2.3	2.7	2.3	0.6
Standby and Sleep	0.4	0.6	0.4	0.4	0.2
Environmental Specifications⁹					
Temperature (°C)					
Operating	0 to 65	0 to 65	0 to 65	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating, (2 ms, read/write)	30	30	30	30	400
Operating, (2 ms, read)	65	65	65	65	
Non-operating (2 ms)	250	250	250	250	1000
Acoustics (dBA) ¹⁰					
Idle	23	21	23	21	24
Seek (average)	24	26	24	22	25
Physical Dimensions					
Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	0.374/9.50
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	3.94/100.2
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	2.75/69.85
Weight (lb/kg, ± 10%)	1.40/0.64	1.32/0.60	0.99/0.45	0.99/0.45	0.25/0.115

Specifications subject to change without notice.

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² As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details. Performance will vary depending on your hardware and software components and configurations.

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⁴ Controlled unload at ambient condition.

⁵ MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not predict an individual drive's reliability and does not constitute a warranty.

⁶ Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

⁷ See support.wdc.com/warranty for regionally specific warranty details.

⁸ Power measurements at room-ambient temperature.

⁹ No non-recoverable errors during operating tests or after non-operating tests.

¹⁰ Sound power level.

Western Digital.

5601 Great Oaks Parkway
San Jose, CA 95119, USA
US (Toll-Free): 800.275.4932
International: 408.717.6000

www.westerndigital.com

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EXHIBIT B



There's a leading edge WD Red drive for every compatible NAS system to help fulfill your data storage needs. With drives up to 14TB, WD Red drives offer a wide array of solutions for customers looking to build a NAS storage solution. Built for single-bay to 8-bay NAS systems, WD Red drives pack the power to store your precious data in one powerhouse unit. With WD Red drives, you're ready for what's next.

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Not just any drive will do. In single-bay to 8-bay NAS systems, WD Red drives raise the bar. Get as much as 112TB capacity, and with WD's exclusive NASware™ technology, you can optimize every single one of them. Built into every WD Red hard drive, NASware 3.0's advanced technology improves your system's storage performance by increasing compatibility, integration, upgradeability, and reliability.

Built for optimum NAS compatibility

Desktop drives aren't purpose-built for NAS. But WD Red drives with NASware technology are. Our exclusive technology takes the guesswork out of selecting a drive. WD Red drives are for small NAS systems, and our unique algorithm balances performance and reliability in NAS and RAID environments. Simply put, a WD Red drive is one of the most compatible drives available for NAS enclosures. But don't take our word for it. WD Red drives are a reflection of extensive NAS partner technology engagement and compatibility-testing resulting in a leading compatibility list for NAS systems.

Desktop Drives vs. WD Red

In a Network Attached Storage device, a desktop hard drive is not typically designed for NAS environments. Do right by your NAS and choose the drive designed for NAS with an array of features to help preserve your data and maintain optimum performance. Take the following into consideration when choosing a hard drive for your NAS:

- **Compatibility:** Without being tested for compatibility with your NAS system, optimum performance is not guaranteed.
- **Reliability:** The always-on environment of a NAS or RAID is a challenging one. And desktop drives aren't typically designed and tested under those conditions. WD Red drives are.
- **Error recovery controls:** WD Red NAS hard drives are specifically designed with RAID error recovery control to help reduce failures within the NAS system. Desktop drives are not typically designed for RAID environments.
- **Noise and Vibration Protection:** Designed to operate solo, desktop drives typically offer little or no protection from the noise and vibration present in a multi-drive system. WD Red drives are designed for multi-bay NAS systems.

WD Red for Home

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WD Red for Small Business

Businesses thrive on productivity and efficiency—two of the guiding principles built into the design of WD Red drives. It's the hard drive of choice for 1 to 8 bay systems. NASware 3.0 technology allows for seamless integration with your existing network so WD Red can share and backup files at the speed of your business. And for larger businesses with up to 24-bays, count on WD Red Pro™ drives.

WD Red Pro for Big Business

If you're looking for maximum performance in a heavy use NAS, WD Red Pro drives deliver the same exceptional performance for the business customer. For NAS environments with 8 to 24 bays, WD Red Pro drives are designed to handle an increase in workload and comes with a 5-year limited warranty.

Product Highlights

- Specifically designed for use in NAS systems with up to 8 bays
- Supports up to 180 TB/yr workload rate¹²
- NASware technology for compatibility
- 3-year limited warranty
- Small and home office NAS systems in a 24x7 environment

INTERFACE	WD100EFAX
SATA 6 Gb/s	WD80EFAX
	WD60EFAX
FORM FACTOR	WD60EFRX
3.5 and 2.5-inch	WD40EFAX
	WD40EFRX
CAPACITIES	WD30EFAX
3.5-inch: 1TB to 14TB	WD30EFRX
2.5-inch: 1TB	WD20EFAX
	WD20EFRX
MODEL NUMBERS	WD10EFRX
3.5-inch:	2.5-inch:
WD140EFFX	WD10JFCX
WD120EFAX	
WD101EFAX	

THE WESTERN DIGITAL ADVANTAGE

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PRODUCT BRIEF

NAS HARD DRIVES

Specifications

	14TB	12TB	10TB	10TB	8TB
Model Number¹	WD140EFFX	WD120EFAX	WD101EFAX	WD100EFAX	WD80EFAX
Recording Technology ¹³	CMR	CMR	CMR	CMR	CMR
Interface ²	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	14TB	12TB	10TB	10TB	8TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Native command queuing	Yes	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
RoHS compliant ³	Yes	Yes	Yes	Yes	Yes

Performance

Interface Transfer Rate ² up to	210 MB/s	196 MB/s	215 MB/s	210 MB/s	198 MB/s
Cache (MB) ²	512	256	256	256	256
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class

Reliability/Data Integrity

Load/unload cycles ⁴	600,000	600,000	600,000	600,000	600,000
Non-recoverable errors per bits read	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴
MTBF (hours) ⁵	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year) ⁶	180	180	180	180	180
Limited warranty (years) ⁷	3	3	3	3	3

Power Management⁸

12VDC ±5% (A, peak)	1.85	1.84	1.75	1.79	1.85
5VDC ±5% (A, peak)					
Average power requirements (W)					
Read/Write	6.5	6.3	8.4	5.7	8.8
Idle	3.0	2.9	4.6	2.8	5.3
Standby and Sleep	0.8	0.6	0.5	0.5	0.8

Environmental Specifications⁹

Temperature (°C)					
Operating	0 to 65	0 to 65	0 to 65	0 to 65	0 to 65
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating, (2 ms, read/write)	30	30	30	30	30
Operating, (2 ms, read)	65	65	65	65	65
Non-operating (2 ms)	300	300	250	300	300
Acoustics (dBA) ¹⁰					
Idle	20	20	34	20	27
Seek (average)	29	29	38	29	29

Physical Dimensions

Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb/kg, ± 10%)	1.52/0.69	1.46/0.66	1.65/0.75	1.43/0.65	1.58/0.715

Specifications subject to change without notice.

¹ Not all products may be available in all regions of the world.

² As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details. Performance will vary depending on your hardware and software components and configurations.

³ WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

⁴ Controlled unload at ambient condition.

⁵ MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on

a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not predict an individual drive's reliability and does not constitute a warranty.

⁶ Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

⁷ See support.wdc.com/warranty for regionally specific warranty details.

⁸ Power measurements at room-ambient temperature.

⁹ No non-recoverable errors during operating tests or after non-operating tests.

¹⁰ Sound power level.

¹² Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

¹³ Implementation of SMR for these products is device-managed SMR.

PRODUCT BRIEF

NAS HARD DRIVES

Specifications

	6TB	6TB	4TB	4TB	3TB
Model Number¹	WD60EFAX	WD60EFRX	WD40EFAX	WD40EFRX	WD30EFAX
Recording Technology ¹³	SMR	CMR	SMR	CMR	SMR
Interface ²	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	6TB	6TB	4TB	4TB	3TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Native command queuing	Yes	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
RoHS compliant ³	Yes	Yes	Yes	Yes	Yes

Performance

Interface Transfer Rate ² up to	180 MB/s	175 MB/s	180 MB/s	150 MB/s	180 MB/s
Cache (MB) ²	256	64	256	64	256
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class

Reliability/Data Integrity

Load/unload cycles ⁴	600,000	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<1 in 1014	<1 in 1014	<1 in 1014	<1 in 1014	<1 in 1014
MTBF (hours) ⁵	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year) ⁶	180	180	180	180	180
Limited warranty (years) ⁷	3	3	3	3	3

Power Management⁸

12VDC ±5% (A, peak)	1.75	1.75	1.75	1.75	1.75
5VDC ±5% (A, peak)					
Average power requirements (W)					
Read/Write	4.8	5.3	4.8	4.5	4.8
Idle	3.1	3.4	3.1	3.3	3.1
Standby and Sleep	0.6	0.4	0.4	0.4	0.4

Environmental Specifications⁹

Temperature (°C)					
Operating	0 to 60	0 to 60	0 to 60	0 to 60	0 to 65
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating, (2 ms, read/write)	30	30	30	30	30
Operating, (2 ms, read)	65	65	65	65	65
Non-operating (2 ms)	250	250	250	250	250
Acoustics (dBA) ¹⁰					
Idle	23	25	23	25	23
Seek (average)	27	28	27	28	27

Physical Dimensions

Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb/kg, ± 10%)		1.65/0.75	1.26/0.57	1.50/0.68	1.40/0.64

Specifications subject to change without notice.

¹ Not all products may be available in all regions of the world

² As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details. Performance will vary depending on your hardware and software components and configurations.

³ WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

⁴ Controlled unload at ambient condition.

⁵ MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on

a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not predict an individual drive's reliability and does not constitute a warranty.

⁶ Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

⁷ See support.wdc.com/warranty for regionally specific warranty details.

⁸ Power measurements at room-ambient temperature.

⁹ No non-recoverable errors during operating tests or after non-operating tests.

¹⁰ Sound power level.

¹² Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

¹³ Implementation of SMR for these products is device-managed SMR.

Western Digital.

PRODUCT BRIEF

NAS HARD DRIVES

Specifications

	3TB	2TB	2TB	1TB	1TB
Model Number¹	WD30EFRX	WD20EFAX	WD20EFRX	WD10EFRX	WD10JFCX
Recording Technology ¹³	CMR	SMR	CMR	CMR	CMR
Interface ²	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	3TB	2TB	2TB	1TB	1TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	2.5-inch
Native command queuing	Yes	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
RoHS compliant ³	Yes	Yes	Yes	Yes	Yes

Performance

Interface Transfer Rate ² up to	147 MB/s	180 MB/s	147 MB/s	150 MB/s	144 MB/s
Cache (MB) ²	64	256	64	64	16
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class

Reliability/Data Integrity

Load/unload cycles ⁴	600,000	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴
MTBF (hours) ⁵	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year) ⁶	180	180	180	180	180
Limited warranty (years) ⁷	3	3	3	3	3

Power Management⁸

12VDC ±5% (A, peak)	1.73	1.31	1.73	1.20	
5VDC ±5% (A, peak)					1.00
Average power requirements (W)					
Read/Write	4.1	4.1	4.1	3.3	1.4
Idle	2.7	2.3	2.7	2.3	0.6
Standby and Sleep	0.4	0.6	0.4	0.4	0.2

Environmental Specifications⁹

Temperature (°C)					
Operating	0 to 65	0 to 65	0 to 65	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating, (2 ms, read/write)	30	30	30	30	400
Operating, (2 ms, read)	65	65	65	65	
Non-operating (2 ms)	250	250	250	250	1000
Acoustics (dBA) ¹⁰					
Idle	23	21	23	21	24
Seek (average)	24	26	24	22	25

Physical Dimensions

Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	0.374/9.50
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	3.94/100.2
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	2.75/69.85
Weight (lb/kg, ± 10%)	1.40/0.64	1.32/0.60	0.99/0.45	0.99/0.45	0.25/0.115

Specifications subject to change without notice.

¹ Not all products may be available in all regions of the world

² As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details. Performance may vary depending on your hardware and software components and configurations.

³ WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

⁴ Controlled unload at ambient condition.

⁵ MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on

a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not predict an individual drive's reliability and does not constitute a warranty.

⁶ Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

⁷ See support.wdc.com/warranty for regionally specific warranty details.

⁸ Power measurements at room-ambient temperature.

⁹ No non-recoverable errors during operating tests or after non-operating tests.

¹⁰ Sound power level.

¹² Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

¹³ Implementation of SMR for these products is device-managed SMR.

Western Digital.

5601 Great Oaks Parkway
San Jose, CA 95119, USA
www.westerndigital.com

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2579-810238-A02 May 2020

EXHIBIT C

Daniel M. Hattis (SBN 232141)
 Paul Karl Lukacs (SBN 197007)
 HATTIS & LUKACS
 400 108th Ave NE, Ste 500
 Bellevue, WA 98004
 Telephone: (425) 233-8650
 Facsimile: (425) 412-7171
 Email: dan@hattislaw.com
 Email: pkl@hattislaw.com

Attorneys for Plaintiff and the Proposed Class

UNITED STATES DISTRICT COURT
 NORTHERN DISTRICT OF CALIFORNIA

NICHOLAS MALONE,
 for Himself, as a Private Attorney
 General, and/or On Behalf Of All
 Others Similarly Situated,

 Plaintiff,

 v.
 WESTERN DIGITAL CORPORATION,

 Defendant.

Case No. 5:20-cv-03584

**DECLARATION OF
 DANIEL M. HATTIS
 PURSUANT TO THE CALIFORNIA
 CONSUMERS LEGAL REMEDIES ACT
 (CAL. CIVIL CODE § 1780(D))**

**[FILED CONCURRENTLY
 WITH COMPLAINT]**

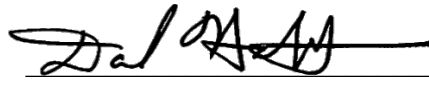
I, DANIEL M. HATTIS, hereby declare and state as follows:

1. I am over the age of 18 years, I am a member in good standing of the State Bar of California, and I am an attorney of record in this civil action, in which I am representing Plaintiff Nicholas Malone. The facts contained herein are based on my personal knowledge except as to facts stated upon information and belief and, as to those, I believe it to be true.
2. This civil action pleads a cause of action for violation of the California Consumers Legal Remedies Act (“CLRA”) against Defendant Western Digital Corporation (“WDC” or “Defendant”). This civil action has been commenced in a county described in Section 1780(d) of the California Civil Code as a proper place for the trial of the action.

1 3. This action is being commenced in Santa Clara County, California, because that
2 is the county in which Defendant has its principal place of business. WDC's headquarters are
3 located at 5601 Great Oaks Parkway, San Jose, California 95119.

4 I declare under penalty of perjury under the laws of the State of California that the
5 foregoing is true and correct.

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7 Executed on May 29, 2020, in King County, State of Washington.

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10 DANIEL M. HATTIS
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CIVIL COVER SHEET

The JS-CAND 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved in its original form by the Judicial Conference of the United States in September 1974, is required for the Clerk of Court to initiate the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

I. (a) PLAINTIFFS
Nicholas Malone(b) County of Residence of First Listed Plaintiff Dane County, Wisconsin
(EXCEPT IN U.S. PLAINTIFF CASES)(c) Attorneys (Firm Name, Address, and Telephone Number)
Daniel M. Hattis, Paul Karl Lukacs; firm: Hattis & Lukacs
400 108th Ave. NE, Ste 500, Bellevue, WA 98004**DEFENDANTS**
Western Digital CorporationCounty of Residence of First Listed Defendant Santa Clara County, California
(IN U.S. PLAINTIFF CASES ONLY)NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF
THE TRACT OF LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff ☐ 3 Federal Question
(U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant ☒ 4 Diversity
(Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff
(For Diversity Cases Only) and One Box for Defendant)

	PTF	DEF		PTF	DEF
Citizen of This State	<input type="checkbox"/> 1	<input type="checkbox"/> 1	Incorporated or Principal Place of Business In This State	<input type="checkbox"/> 4	<input checked="" type="checkbox"/> 4
Citizen of Another State	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 2	Incorporated and Principal Place of Business In Another State	<input type="checkbox"/> 5	<input type="checkbox"/> 5
Citizen or Subject of a Foreign Country	<input type="checkbox"/> 3	<input type="checkbox"/> 3	Foreign Nation	<input type="checkbox"/> 6	<input type="checkbox"/> 6

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance	PERSONAL INJURY	<input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC § 881	<input type="checkbox"/> 422 Appeal 28 USC § 158	<input type="checkbox"/> 375 False Claims Act
<input type="checkbox"/> 120 Marine	<input type="checkbox"/> 310 Airplane	<input type="checkbox"/> 690 Other	<input type="checkbox"/> 423 Withdrawal 28 USC § 157	<input type="checkbox"/> 376 Qui Tam (31 USC § 3729(a))
<input type="checkbox"/> 130 Miller Act	<input type="checkbox"/> 315 Airplane Product Liability	LABOR	PROPERTY RIGHTS	<input type="checkbox"/> 400 State Reapportionment
<input type="checkbox"/> 140 Negotiable Instrument	<input type="checkbox"/> 320 Assault, Libel & Slander	<input type="checkbox"/> 710 Fair Labor Standards Act	<input type="checkbox"/> 820 Copyrights	<input type="checkbox"/> 410 Antitrust
<input type="checkbox"/> 150 Recovery of Overpayment Of Veteran's Benefits	<input type="checkbox"/> 330 Federal Employers' Liability	<input type="checkbox"/> 720 Labor/Management Relations	<input type="checkbox"/> 830 Patent	<input type="checkbox"/> 430 Banks and Banking
<input type="checkbox"/> 151 Medicare Act	<input type="checkbox"/> 340 Marine	<input type="checkbox"/> 740 Railway Labor Act	<input type="checkbox"/> 835 Patent—Abbreviated New Drug Application	<input type="checkbox"/> 450 Commerce
<input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excludes Veterans)	<input type="checkbox"/> 345 Marine Product Liability	<input type="checkbox"/> 751 Family and Medical Leave Act	<input type="checkbox"/> 840 Trademark	<input type="checkbox"/> 460 Deportation
<input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits	<input type="checkbox"/> 350 Motor Vehicle	<input type="checkbox"/> 790 Other Labor Litigation	SOCIAL SECURITY	<input type="checkbox"/> 470 Racketeer Influenced & Corrupt Organizations
<input type="checkbox"/> 160 Stockholders' Suits	<input type="checkbox"/> 355 Motor Vehicle Product Liability	<input type="checkbox"/> 791 Employee Retirement Income Security Act	<input type="checkbox"/> 861 HIA (1395ff)	<input type="checkbox"/> 480 Consumer Credit
<input type="checkbox"/> 190 Other Contract	<input type="checkbox"/> 360 Other Personal Injury	IMMIGRATION	<input type="checkbox"/> 862 Black Lung (923)	<input type="checkbox"/> 485 Telephone Consumer Protection Act
<input type="checkbox"/> 195 Contract Product Liability	<input type="checkbox"/> 362 Personal Injury -Medical Malpractice	<input type="checkbox"/> 462 Naturalization Application	<input type="checkbox"/> 863 DIWC/DIWW (405(g))	<input type="checkbox"/> 490 Cable/Sat TV
<input type="checkbox"/> 196 Franchise	CIVIL RIGHTS	<input type="checkbox"/> 465 Other Immigration Actions	<input type="checkbox"/> 864 SSID Title XVI	<input type="checkbox"/> 850 Securities/Commodities/ Exchange
REAL PROPERTY	PRISONER PETITIONS		<input type="checkbox"/> 865 RSI (405(g))	<input type="checkbox"/> 890 Other Statutory Actions
<input type="checkbox"/> 210 Land Condemnation	HABEAS CORPUS		FEDERAL TAX SUITS	<input type="checkbox"/> 891 Agricultural Acts
<input type="checkbox"/> 220 Foreclosure	<input type="checkbox"/> 440 Other Civil Rights		<input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant)	<input type="checkbox"/> 893 Environmental Matters
<input type="checkbox"/> 230 Rent Lease & Ejectment	<input type="checkbox"/> 441 Voting		<input type="checkbox"/> 871 IRS—Third Party 26 USC § 7609	<input type="checkbox"/> 895 Freedom of Information Act
<input type="checkbox"/> 240 Torts to Land	<input type="checkbox"/> 442 Employment			<input type="checkbox"/> 896 Arbitration
<input type="checkbox"/> 245 Tort Product Liability	<input type="checkbox"/> 443 Housing/ Accommodations			<input type="checkbox"/> 899 Administrative Procedure Act/Review or Appeal of Agency Decision
<input type="checkbox"/> 290 All Other Real Property	<input type="checkbox"/> 445 Amer. w/Disabilities— Employment			<input type="checkbox"/> 950 Constitutionality of State Statutes
	<input type="checkbox"/> 446 Amer. w/Disabilities—Other			
	<input type="checkbox"/> 448 Education			
	OTHER			
	<input type="checkbox"/> 530 General			
	<input type="checkbox"/> 535 Death Penalty			
	<input type="checkbox"/> 540 Mandamus & Other			
	<input type="checkbox"/> 550 Civil Rights			
	<input type="checkbox"/> 555 Prison Condition			
	<input type="checkbox"/> 560 Civil Detainee— Conditions of Confinement			

V. ORIGIN (Place an "X" in One Box Only)

- ☒ 1 Original Proceeding ☐ 2 Removed from State Court ☐ 3 Remanded from Appellate Court ☐ 4 Reinstated or Reopened ☐ 5 Transferred from Another District (specify) ☐ 6 Multidistrict Litigation—Transfer ☐ 8 Multidistrict Litigation—Direct File

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):

28 U.S.C. § 1332(d)(2)

Brief description of cause:

False advertising of hard drives as suitable for certain purpose when they are not

VII. REQUESTED IN COMPLAINT:☒ CHECK IF THIS IS A CLASS ACTION DEMAND \$ UNDER RULE 23, Fed. R. Civ. P.CHECK YES only if demanded in complaint:
JURY DEMAND: ☐ Yes ☐ No**VIII. RELATED CASE(S), IF ANY** (See instructions):

JUDGE

DOCKET NUMBER

IX. DIVISIONAL ASSIGNMENT (Civil Local Rule 3-2)

(Place an "X" in One Box Only)

☐ SAN FRANCISCO/OAKLAND☒ SAN JOSE☐ EUREKA-MCKINLEYVILLE

DATE 05/29/2020

SIGNATURE OF ATTORNEY OF RECORD

/s/ Daniel M. Hattis

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS-CAND 44

Authority For Civil Cover Sheet. The JS-CAND 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved in its original form by the Judicial Conference of the United States in September 1974, is required for the Clerk of Court to initiate the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

- I. a) Plaintiffs-Defendants.** Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.
 - b) County of Residence.** For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the “defendant” is the location of the tract of land involved.)
 - c) Attorneys.** Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section “(see attachment).”
 - II. Jurisdiction.** The basis of jurisdiction is set forth under Federal Rule of Civil Procedure 8(a), which requires that jurisdictions be shown in pleadings. Place an “X” in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.
 - (1) United States plaintiff. Jurisdiction based on 28 USC §§ 1345 and 1348. Suits by agencies and officers of the United States are included here.
 - (2) United States defendant. When the plaintiff is suing the United States, its officers or agencies, place an “X” in this box.
 - (3) Federal question. This refers to suits under 28 USC § 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.
 - (4) Diversity of citizenship. This refers to suits under 28 USC § 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; **NOTE: federal question actions take precedence over diversity cases.**)
 - III. Residence (citizenship) of Principal Parties.** This section of the JS-CAND 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.
 - IV. Nature of Suit.** Place an “X” in the appropriate box. If the nature of suit cannot be determined, be sure the cause of action, in Section VI below, is sufficient to enable the deputy clerk or the statistical clerk(s) in the Administrative Office to determine the nature of suit. If the cause fits more than one nature of suit, select the most definitive.
 - V. Origin.** Place an “X” in one of the six boxes.
 - (1) Original Proceedings. Cases originating in the United States district courts.
 - (2) Removed from State Court. Proceedings initiated in state courts may be removed to the district courts under Title 28 USC § 1441. When the petition for removal is granted, check this box.
 - (3) Remanded from Appellate Court. Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.
 - (4) Reinstated or Reopened. Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.
 - (5) Transferred from Another District. For cases transferred under Title 28 USC § 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.
 - (6) Multidistrict Litigation Transfer. Check this box when a multidistrict case is transferred into the district under authority of Title 28 USC § 1407. When this box is checked, do not check (5) above.
 - (8) Multidistrict Litigation Direct File. Check this box when a multidistrict litigation case is filed in the same district as the Master MDL docket. Please note that there is no Origin Code 7. Origin Code 7 was used for historical records and is no longer relevant due to changes in statute.
 - VI. Cause of Action.** Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC § 553. Brief Description: Unauthorized reception of cable service.
 - VII. Requested in Complaint.** Class Action. Place an “X” in this box if you are filing a class action under Federal Rule of Civil Procedure 23. Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction. Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.
 - VIII. Related Cases.** This section of the JS-CAND 44 is used to identify related pending cases, if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.
 - IX. Divisional Assignment.** If the Nature of Suit is under Property Rights or Prisoner Petitions or the matter is a Securities Class Action, leave this section blank. For all other cases, identify the divisional venue according to Civil Local Rule 3-2: “the county in which a substantial part of the events or omissions which give rise to the claim occurred or in which a substantial part of the property that is the subject of the action is situated.”
- Date and Attorney Signature.** Date and sign the civil cover sheet.